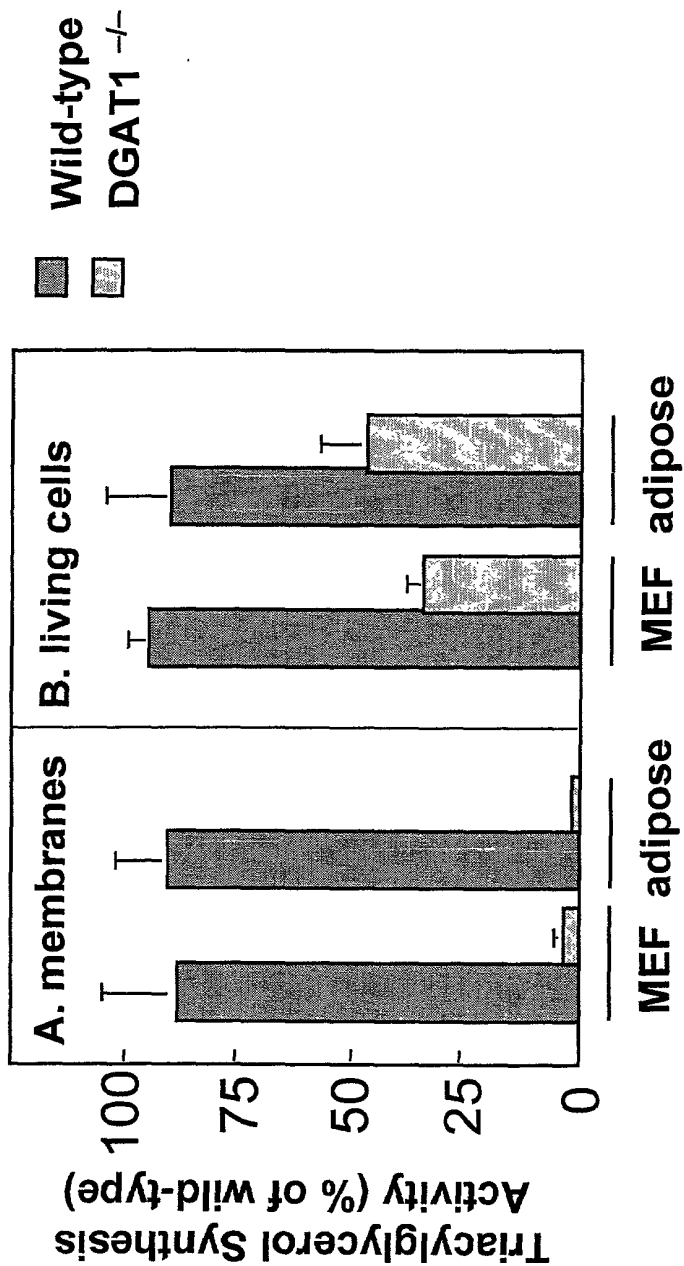


FIG. 1



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Filed: 1/14/02
For: "Mono- and Diacylglycerol Acyltransferases
and Methods of Use Thereof"
(19) Drawing pages

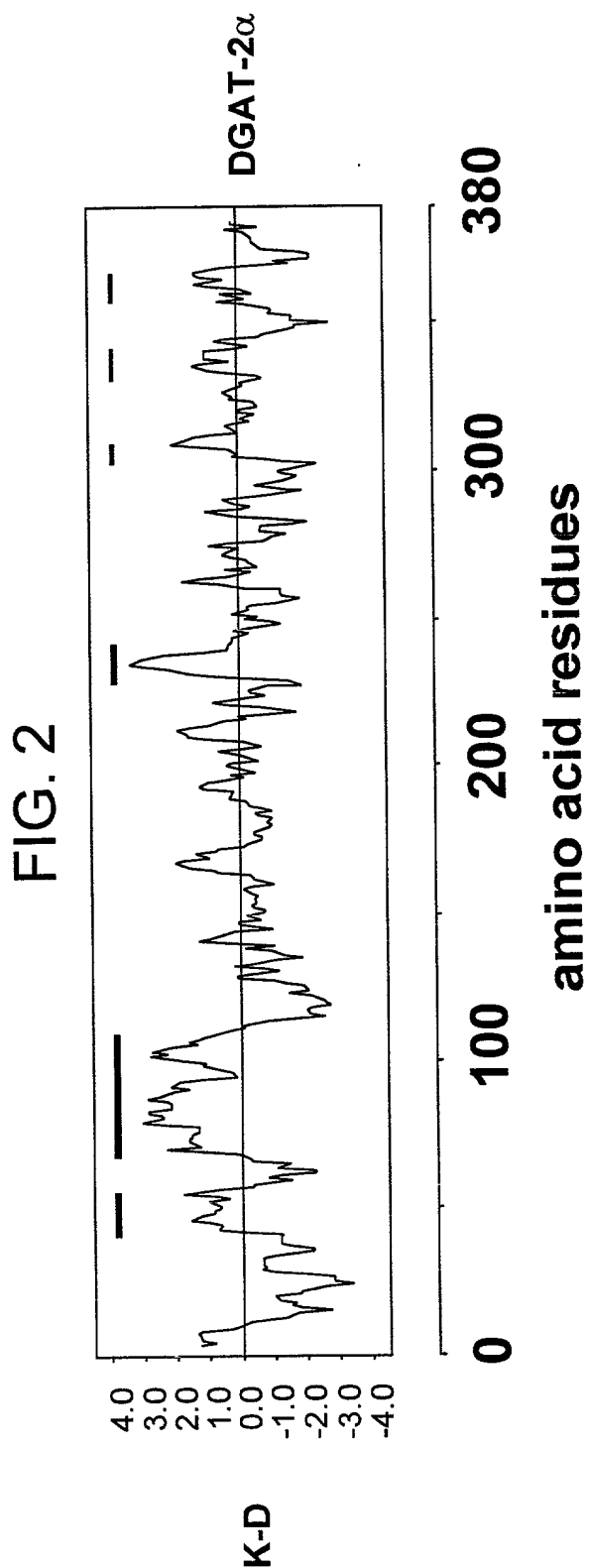


FIG. 3A

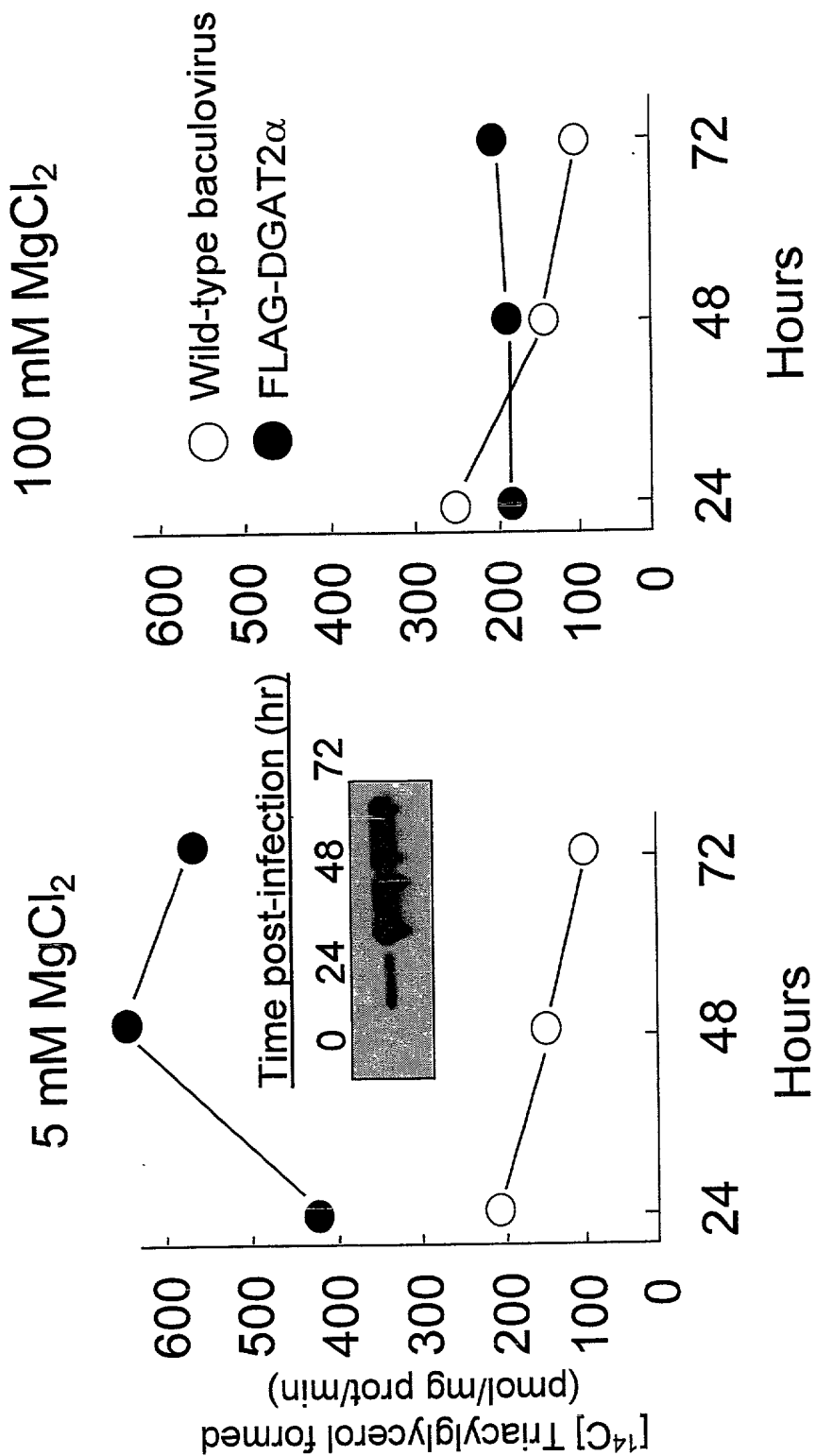


FIG. 3B
B. DGAT2 α activity as a function of
Diacylglycerol

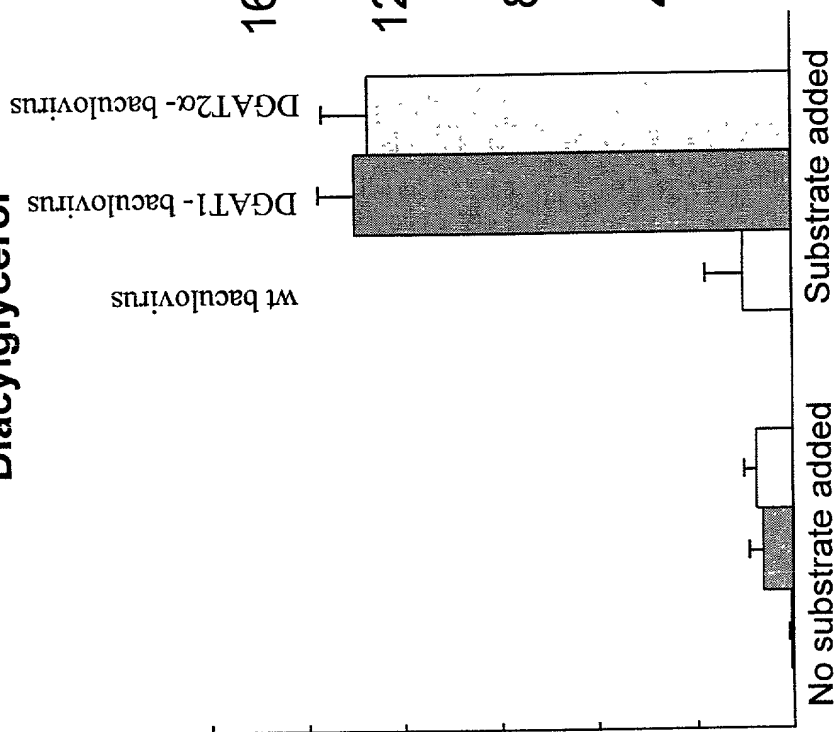


FIG. 3C
C. DGAT2 α activity as a function of
Oleoyl Coenzyme A

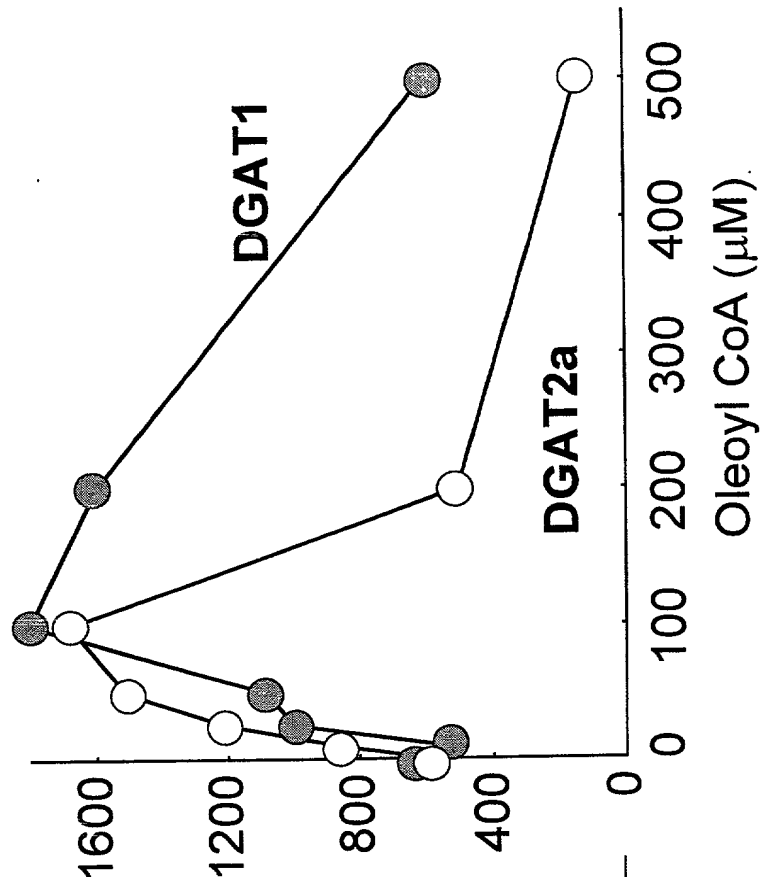


FIG. 4
A. Tissue distribution of human DGAT2 α

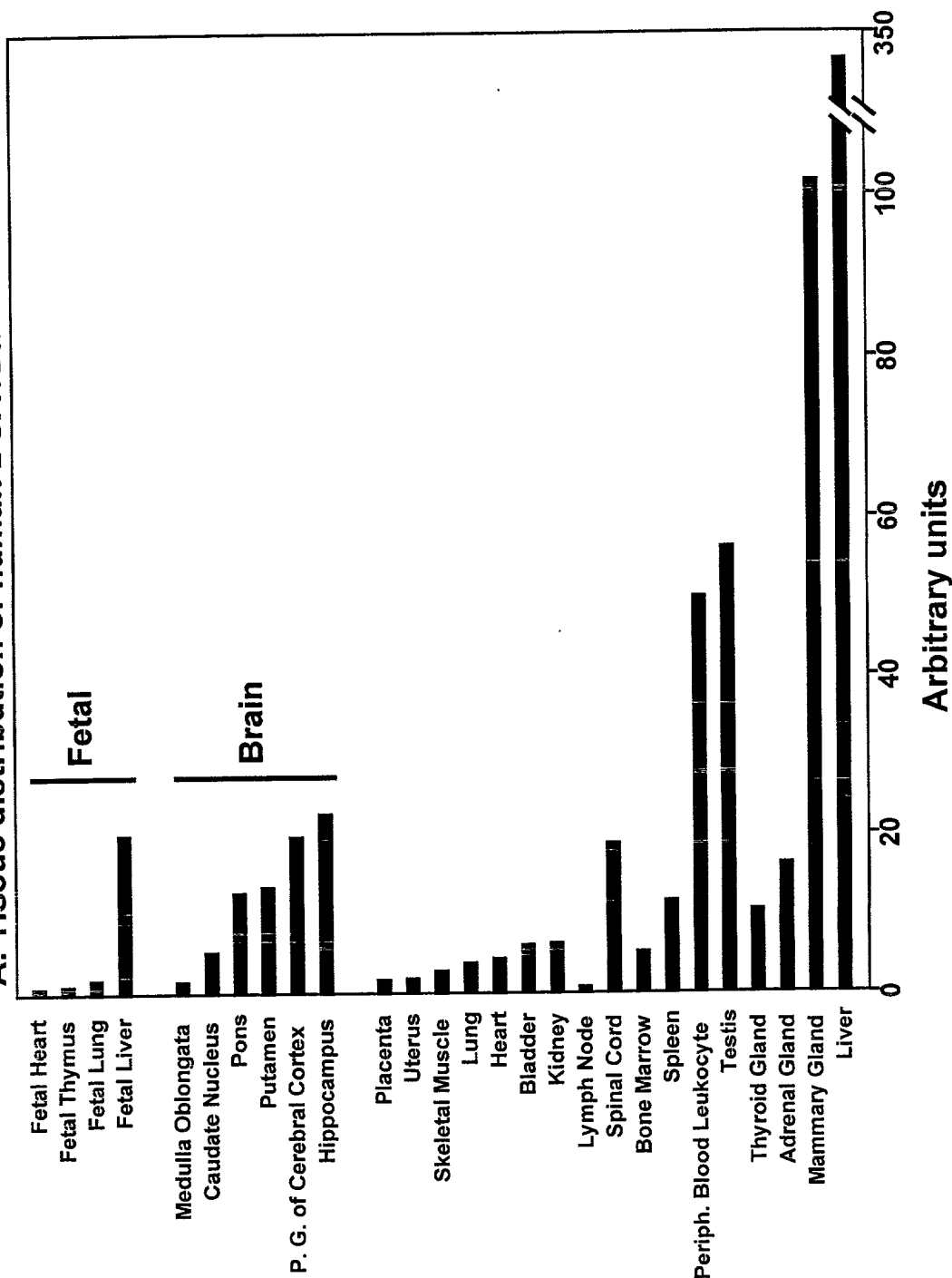


FIG. 5

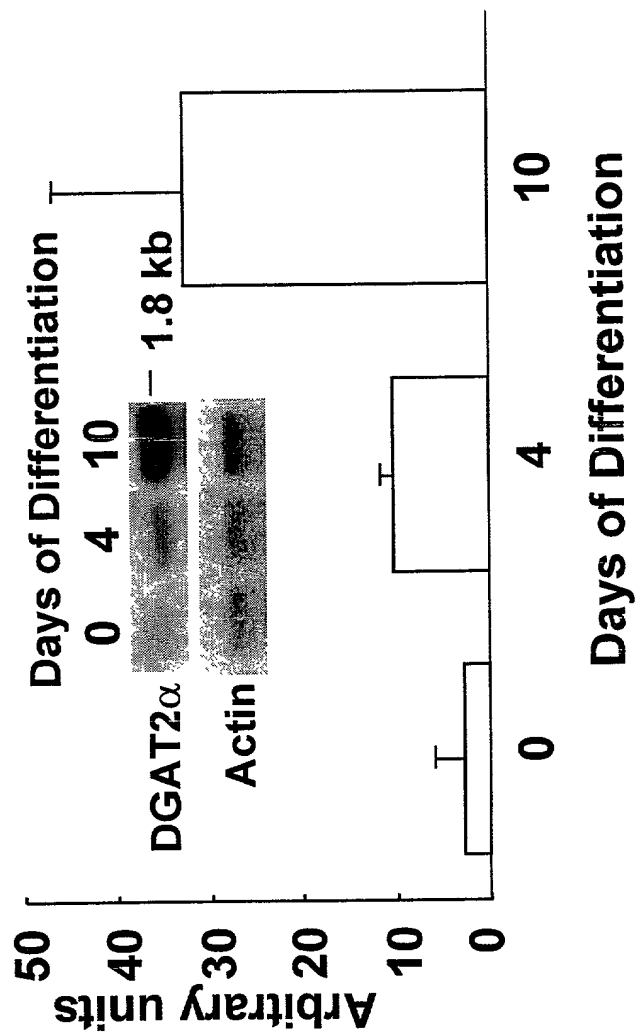


FIG. 6A

Mouse DGAT2 α amino acid sequence

MKTLIAAYSGVLRGERRAELPAAKNKNKGSALSREGSGRWGTGSSILSALQDIFSVTWLNRSKVEKQLQV
ISVLQWVLSFLVLGVACSVILMYTFCTDCWLI AVLFTWLAFDWNTPKKGGRRSQWVRNWAVWRYFRDYF
PIQLVKTHNLLTTRNYIFGYHPHGIMGLGAFCNFSTEATEVSKKFPGIRPYLATLAGNFRMPVLRREYLMs
GGICLVNRDTIDYLLSKNGSGNAIIIVVGGAESLSSMPGKNAVTLKNRKG FVKLALRHGADLVPTYSFG
ENEVYKQVIFEESWGRWVKKFQKYIGFAPCI FHGRGLFSSDTWGLVPYSKPITTVVGEPI TVPKLEHPT
QKDIDLYHAMYMEALVKLFDNHKTKFGLPETEVLEV N (SEQ ID NO:04)

FIG. 6B

Mouse DGAT2 α nucleic acid sequence

ATGAAGACCCTCATCGCCGCCTACTCCGGGGTCTCGGGGGTGAGCGTCGGGCGGAAGCTGCCCCGAGCGAA
AACAAGAATAAAGGATCTGCCCTGTACGCGAGGGGTCTGGGCGATGGGGCACTGGCTCCAGCATCCTCTCA
GCCCTCCAAGACATCTTCTGTGTCACCTGGCTCAACAGATCYAAGGTGGAAAAACAGCTGCAGGTCATCTCA
GTACTACAATGGGTCTATCCTTCCTGGTGCTAGGAGTGGCCTGCAGTGT CATCTCATGTACACCTTCTGC
ACAGACTGCTGGCTGATAGCTGTGCTCTACTTCACCTGGCTGGCATTGACTGGAACACGCCCAAGAAAGGT
GGCAGGAGATCGCAGTGGGTGCGAAACTGGGCCGTGTGGCGCTACTTCCGAGACTACTTTC CATCCAGCTG
GTGAAGACACACAACCTGCTGACCACCAGGA ACTATATCTTTGGATACCACCCCATGGCATCATGGGCCTG
GGTGCCCTTCTGTA ACTTCAGCACAGAGGCTACTGAAGTCAGCAAGAAGTTTCTGGCATAAGGCCCTATTTG
GCTACGTTGGCYGGTA ACTTCCGGATGCCTGTGCTTCGCGAGTACCTGATGTCTGGAGGCATCTGCCCTGTC
AACCAGACACCATAGACTACTTGCTCTCCAAGAATGGGAGTGGCAATGCTATCATCATCGTGGTGGGAGGT
GCAGCTGAGTCCCTGAGCTCCATGCCTGGCAAGAACGCAGTCACCTGAAGAACCGCAAAGGCTTTGTGAAG
CTGGCCCTGCGCCATGGAGCTGATCTGGTTCCCACTTATTCCTTTGGAGAGAATGAGGTATACAAGCAGGTG
ATCTTTGAGGAGGGTTCTGGGGCCGATGGGTCCAGAAGAAGTTCCAGAAGTATATTTGGTTTCGCCCCCTGC
ATCTTCCATGGCCGAGGCCTCTTCTCCTCTGACACCTGGGGGCTGGTGCCCTACTCCAAGCCCATCACCACC
GTCGTGGGGGAGCCCATCACTGTCCCCAAGCTGGAGCACCCGACCCAGAAAGACATCGACCTGTACCATGCC
ATGTACATGGAGGCCCTGGTGAAGCTCTTTGACAATCACAAGACCAAATTTGGCCTNCCAGAGACTGAGGTG
CTGGAGGTGAACTGA (SEQ ID NO:03)

FIG. 7A

Human DAGT2 α amino acid sequence

MKTLIAAYSGVLRGERQAEADRSQRSHGGPALSREGSGRWGTGSSILSALQDLFSVTWLNRSKVEKQLQV
ISVLQWLVSFLVLGVACSAILMYIFCTDCWLIADVLYFTWLVFDWNTPKKGRRSQWVRNWAVWRYFRDYF
PIQLVKTHNLLTTRNYIFGYHPHGIMGLGAFCNFSTEATEVSKKFPGIRPYLATLAGNFRMPVLRREYLM
GGICPVSRDTIDYLLSKNGSGNAIIIVVGAAESLSSMPGKNAVTLNRKGFVKLALRHGADLVPIYSFG
ENEVYKQVIFEEGWSGRWVQKKFQKYIGFAPCIFHGRGLFSSDTWGLVPYSKPITTTVVGEPITIPKLEHP
TQQDIDLYHTMYMEALVKLFDKHKTKFGLPETEVLEV N (SEQ ID NO:02)

FIG. 7B

Human DAGT2 α nucleic acid sequence

TTCAGCCATGAAGACCCTCATAGCCGCCTACTCCGGGGTCTCGCGCGGAGCGTCAGGCCGAGGCTGACCG
GAGCCAGCGCTCTCACGGAGGACCCGTGTGCGCGGAGGGGTCTGGGAGATGGGGCACTGGATCCAGCATCCT
CTCCGCCCTCCAGGACCTCTTCTGTGTCACCTGGCTCAATAGGTCCAAGGTGGAAAAGCAGCTACAGGTCAT
CTCAGTGCTCCAGTGGGTCTGTCTTCTTGTACTGGGAGTGGCCTGCAGTGCCATCCTCATGTACATATT
CTGCACTGATTGCTGGCTCATCGCTGTGCTCTACTTCACTTGGCTGGTGTGTTGACTGGAACACACCCAAGAA
AGGTGGCAGGAGGTACAGTGGGTCCGAACTGGGCTGTGTGGCGCTACTTTCGAGACTACTTTCCCATCCA
GCTGGTGAAGACACACAACCTGCTGACCACCAGGAATATATCTTTGGATACACCCCCATGGTATCATGGG
CCTGGGTGCCTTCTGCAACTTCAGCACAGAGGCCACAGAAGTGAGCAAGAAGTTCCCAGGCATACGGCCTTA
CCTGGCTACACTGGCAGGCAACTTCGGAATGCCTGTGTTGAGGGAGTACCTGATGTCTGGAGGTATCTGCCC
TGTCAGCCGGGACACCATAGACTATTTGCTTTCAAAGAATGGGAGTGGCAATGCTATCATCATCGTGGTTCGG
GGGTGCGGCTGAGTCTCTGAGCTCCATGCCTGGCAAGAATGCAGTCACCCTGCGGAACCGCAAGGGCTTTGT
GAAACTGGCCCTGCGTCATGGAGCTGACCTGGTTCCTCATCTACTCCTTTGGAGAGAATGAAGTGTACAAGCA
GGTGATCTTCGAGGAGGGCTCCTGGGGCCGATGGGTCCAGAAGAAGTTCCAGAAATACATTGGTTTTGCCCC
ATGCATCTTCCATGGTTCGAGGCCTCTTCTCCTCCGACACCTGGGGGCTGGTGCCCTACTCCAAGCCCATCAC
CACTGTTGTGGGAGAGCCCATCACCATCCCCAAGCTGGAGACCCAACCCAGCAAGACATCGACCTGTACCA
CACCATGTACATGGAGGCCCTGGTGAAGCTCTTCGACAAGCACAAAGACCAAGTTTCGGCCTCCCGGAGACTGA
GGTCTGGAGGTGAAGTGAAGCAGCCTTCGGGGCCAATTCCTGGAGGAACCCAGCTGCAAATCACTTTTTTGT
CTCTGTA (SEQ ID NO:01)

FIG. 8A

Mouse DC2 amino acid sequence

MMVEFAPLNTPLARCLQTA AVLQWVLSFLLLVQVCIGIMVMLVLYNYWFLYIPYLVWFYDWRTP EQGGR
RWNWVQSWPVWKYFKEYFPICLVKTQDLDPGHNYIFGFHPHGIFVPGA FGNFCTKYSDFKKLFPGFTSYL
HVAKIWFCFPLFREYLMSNGPVSVSKESSLHVL SKDGGGNVSIIVLGGAKEALEAHPGTFTLCIRQRKGF
VKMALTHGASLVPVFSFGENDLYKQINNPKG SWLRTIQDAMYDSMGVALPLIYARGIFQHYFGIMPYRKL
IYTVVGRPIPVQQILNPTSEQIEELHQTYLEELKKLFNEHKGKYGIPEHETLVFK (SEQ ID NO:06)

Mouse DC2 nucleic acid sequence

ATGATGGTGCAGTTTCGCGCCACTCAACACCCCGCTGGCACGGTGCCTACAGACCGCTGCGGTGCTGCAGTGG
GTCTGTCTCTTCTCTCTGCTCGTGCAGGTGTGCATTGGAATTATGGTGATGCTGGTCTGTACA ACTATTGG
TTCCTTTACATCCCATATCTGGTCTGGTTTTACTATGACTGGAGAACCCAGAGCAAGGAGGCAGAAGATGG
AACTGGGTCAAAGCTGGCCTGTGTGGAAGTATTTTAAGGAGTATTTTCCAATCTGTCTTGTCAAACGCAG
GATTTGGATCCGGGTACAATTATATATTTGGGTTTACCCTCATGGAATATTCGTGCCTGGAGCCTTTGGA
AATTTTGTACAAAATACTCGGACTTCAAGAAGCTATTTCTGGCTTTACATCGTATCTCCACGTGGCCAAG
ATCTGGTTCGTGTTCCCGTTGTTCCGAGAATATCTGATGAGTAACGGGCCGGTTTCAGTGTCTAAGGAGAGT
TTGTCTCATGTGCTGAGCAAGGATGGAGGTGGCAATGTCTCAATCATTGTCTCCTCGGAGGTGCAAAGGAGCG
CTGGAGGCTCACCCAGGAACATTCACCCTGTGCATCCGCCAGCGCAAAGGGTTTGTTAAGATGGCCTTGACC
CATGGTGCCAGTTTGGTTCAGTATTTTCTTTTGGTGAAAATGATCTATATAAGCAAATTAACAACCCCAAA
GGCTCCTGGCTACGAATAACAAGACGCAATGTATGATTCAATGGGAGTAGCCTTGCCACTGATATATGCC
AGAGGAATTTTCCAGCACTACTTTGGCATAATGCCCTATCGGAAGCTGATCTACACTGTTGTTGGCCGCCCT
ATCCCTGTTTCCAGCAGATTCTGAACCCGACCTCAGAGCAGATTGAAGAGCTGCATCAGACATACCTAGAGGAG
CTAAAGAACTATTCAATGAACACAAAGGGAAATATGGGATTCCGGAGCACGAACTCTGGTATTTAAATAA
(SEQ ID NO:05)

Human DC2 amino acid sequence

MKVEFAPLNIQLARRLQTVAVLQWVLSFLTGPMSIGITVMLIIHNYLFLYIPYLMWLYFDWHTPERGGRR
SSWIKNWTLWKHFKDYFPIHLIKTQDLDP SHNYIFGFHPHGIMAVGAFGNFSVNYSDFKDLFPGFTSYLH
VLPLWFWCPVFREYVMSVGLVSVSKSVSYMVSKEGGNISVIVLGGAKESLDAHPGKFTLFI RQRKGFV
KIALTHGASLVPVVSFGENELFKQTDNPEG SWIRTVQNKLQKIMGFALPLFHARGV FQYNFGLMTYRKAI
HTVVGRPIPVRRQTLNPTQEQIEELHQTYMEELRKLFEHKGKYGIPEHETLVLK (SEQ ID NO:08)

Human DC2 nucleic acid sequence

CGTGGGTGCAGGCTGCAGTGGCTGGCGCCGTCCTCGCCCGCCAGGCCATGAAGGTAGAGTTTGCACCGCTC
AACATCCAGCTGGCGCGCGGCTGCAGACGGTGGCCGTGCTGCAGTGGGTCTTTTCTTTTCTTACAGGGCCG
ATGTCCATTGGAATCACTGTGATGCTGATCATACACAACTATTGTTCTTTTACATCCCTTATTTGATGTGG
CTTTACTTTGACTGGCATAACCCAGAGCGAGGAGGCAGGAGATCCAGCTGGATCAAAAATTGGACTCTTTGG
AAACACTTTAAGGACTATTTTCCAATTCATCTTATCAAACTCAAGATTTGGATCCAAGTCACA ACTATATA
TTTGGGTTTACCCCCATGGAATAATGGCAGTTGGAGCCTTTGGGAATTTTCTGTAAATTATTCTGACTTC
AAGGACCTGTTTCTGGCTTTACTTCATATCTTCACGTGCTGCCACTTTGGTTCTGGTGTCTGTCTTTCGA
GAATATGTGATGAGTGTGGGCTGGTTTCAGTTTCCAAGAAAAGTGTGTCTACATGGTAAGCAAGGAGGGA
GGTGGAACATCTCTGTATTGTCCTTGGGGGTGCAAAAGAATCACTGGATGCTCATCTGGAAAGTTCACT
CTGTTTCATCCGCCAGCGGAAAGGATTTGTTAAATGCTTTGACCCATGGCGCCTCTCTGGTCCCAGTGGTT
TCTTTTGGTGAAAATGAACTGTTTAAACAACTGACAACCTGAAGGATCATGGATTAGAACTGTTT CAGAAT
AAACTGCAGAAGATCATGGGTTTGTCTTGGCCCTGTTTCATGCCAGGGGAGTTTTTCAGTACAATTTTGGC
CTAATGACCTATAGGAAAGCCATCCACACTGTTGTTGGCCGCCGATCCCTGTTCTGTCAGACTCTGAACCCG
ACCCAGGAGCAGATTGAGGAGTTACATCAGACCTATATGGAGGAACCTAGGAAATGTTT GAGGAACACAAA

FIG. 8B

Mouse DC3 amino acid sequence (partial sequence, about 100 amino acids gap in the center of the protein)

MKTEHLQSLSLQWPLSYVAMFWIVQPLLICLLFTPLWPLPTVYFVWLLLDWKTPDKGGRSDWVRNWNV
WNHIRDYFPITILKTKDLSPSENYIMGVHPHGLLTFGAFCNFCTEATGFSKTFPGITPHLATLSWFFKIP
IIRDYIMAKGLCSVSQASIDYLLSHGTGNLVGIPITVVGGEALPLPQVKNPSPEIVDKYHALYMDALYKL
FEQHKVQYGCSTNTQKLIFL (SEQ ID NO:10)

Mouse DC3 nucleic acid sequence (partial sequence, about 100 amino acids gap in the center of the protein)

TTACCTCCCTCAGGGTCTGGGCATCATGTCTTGCTCTATGAAGACTGAACACTTACAGAGTCTGAGCCTTC
TGCAGTGGCCCTTGAGCTACGTTGCCATGTTTTGGATTGTGCAGCCATTGTTAATTTGCCTATTGTTACAC
CCTTGTGGCCGCTACCAACAGTTTACTTTGTCTGGTTACTTCTCGACTGGAAGACTCCAGATAAAGGTGGCA
GGCGTTTCACTGGGTACGGAAGTGAATGTCTGGAACACATCAGGGACTATTTCCCCATTACAATCCTGA
AGACTAAGGACCTGTACCTTCAGAGAACTACATCATGGGGTCCACCCCATNGGTCTCTGACCTTCGGTG
CCTTCTGCAACTTCTGCACTGAGGCCACAGGCTTCTCGAAGACCTTCCCAGGCATCACTCCTCACTTGGCCA
CAC (SEQ ID NO:09)

Human DC3 amino acid sequence

MAFFSRLNLQEGQLQTFVFLQWIPVYIFLVWILQPLFVYLLFTSLWPLPVLYFAWLFLDWKTPERGGRSA
WVRNWCWVTHIRDYFPITILKTKDLSPHNYLMGVHPHGLLTFGAFCNFCTEATGFSKTFPGITPHLATL
SWFFKIPFVREYLMAGVCSVSQPAINYLLSHGTGNLVGIVGGVGEALQSVNNTTLILQKRKGFVRTA
LQHGAYLVPSYSFGENEVFNQETFPEGTWLRLFQKTFQDTFKKILGLNFCTFHGRGFTRGSWGFLPFNRP
ITTVVGEPPLPIPRIKRPNQKTVDKYHALYISALRKLFDQHKVEYGLPETQELTIT (SEQ ID NO:12)

Human DC3 nucleic acid sequence

ATCAACTCAGCTTAAGAAGTTTTGGCCTTCTGGTTAGGCTTCTTGCCACAACAGAACAGCACCATAACCATG
GCTTTCTTCTCCGACTGAATCTCCAGGAGGGCCTCCAAACCTTCTTTGTTTTGCAATGGATCCCAGTCTAT
ATATTTTGTAGTTGGATCTTGCAGCCATTGTTTCGTCTACCTGCTGTTTACATCCTTGTGGCCGCTACCAAGT
CTTTACTTTGCCTGGTTGTTTCCTGGACTGGAAGACCCAGAGCGAGGTGGCAGGCGTTCCGGCCTGGGTAAGG
AACTGGTGTGTCTGGACCCACATCAGGGACTATTTCCCCATTACGATCCTGAAGACAAAGGACCTATCACCT
GAGCACAACACTACCTCATGGGGGTTACCCCCATGGCCTCCTGACCTTTGGCGCCTTCTGCAACTTCTGCACT
GAGGCCACAGGCTTCTCGAAGACCTTCCCAGGCATCACTCCTCACTTGGCCACGCTGTCTGTTCTTCAAG
ATCCCCCTTTGTTAGGGAGTACCTCATGGCCAAAGGTGTGTGCTCTGTGAGCCAGCCAGCCATCAACTATCTG
CTGAGCCATGGCACTGGCAACCTCGTGGGCATTGTAGTGGGAGGTGTGGGTGAGGCCCTGCAAAGTGTGCCC
AACACCACCACCTCATCCTCCAGAAGCGCAAGGGGTTCTGTGCGCACAGCCCTCCAGCATGGGGCATACTT
GTCCCTTCATATTCCTTTGGTGAGAACGAAGTTTTCAATCAGGAGACCTTCCCTGAGGGCACGTGGTTAAGG
TTGTTCCAAAAACCTTCCAGGACACATTCAAAAAATCCTGGGACTAAATTTCTGTACCTTCCATGGCCGG
GGCTTCACTCGCGGATCCTGGGGCTTCTGCCTTTCAATCGGCCCATACCACTGTTGTTGGGGAACCCCTT
CCAATTTCCAGGATTAAGAGGCCAAACCAGAAGACAGTAGACAAGTATCACGCACTCTACATCAGTGCCTG
CGCAAGCTCTTTGACCAACACAAAGTTGAATATGGCCTCCCTGAGACCCAAGAGCTGACAATTACATAACAG
GAGCCACATTTCCCATTTGATCAACCCCAAGCCATGAGGGATCCAAGTAGAGCCACAGAAAAAGAAGATT
CCAGGAGAGGGAAAGATCGTAAGGATGAGAGAGGAGACCATCCAAGCCAGAAATTATTTAATAAATCAGAGT
TCTAGCAATAGAGTCC (SEQ ID NO:11)

FIG. 8C

Human DC4 amino acid sequence

MLLPSKKDLKTALDVFAVFQWSFSALLITTTVIAVNLYLVVFTPYWPVTVLILTWLAFDWKTPQRGRRF
TCVRHWRLWKHYSDYFPLKLLKTHDICPSRNYILVCHPHGLFAHGWFHGFATEASGFSKI FPGITPYILT
LGAFFWMPFLREYVMSTGACSVSRSSIDFLLTHKGTGNMIVIVIGGLAECRYSLPGSSTLVLKNRSGFVR
MALQHGVP LIPAYAFGETDLYDQHI FT PGGFVNRFQKWFQSMVHIYPCAFYGRGFTKNSWGLLPYSRPVT
TIVGEPLMPK IENPSQEIVAKYHTLYIDALRKLFQHKTKFGISETQELEII (SEQ ID NO:014)

Human DC4 nucleic acid sequence

AATTCGGCTTACTCACTATAGGGCTCGAGCGGCCCCCGGGCAGGTGCCGACTTCATTTCCAAGTCTGCAC
ACAATGCAGGCAGTAGCCATGCCTGACAGCCACATGACAGATACTACACCGCTGAATGTGCTCTAACCCT
GGACTTGGCATTGCCCCCTACTGTTGAGGAAGCAGTGCGTTTTTCTCCAGTCTTTCAGGTCCCTTCACCAG
GGAACCATTAACCTTGTGCATCAGAACAAGGACATTTCTTACATTCTGCAAACACAGTCCCTTTCAGTTT
ACTCTTTTTTTGAGGGGGGGGGCGCGGGGAACGGAGTCTCGCTCTGTGCGCCAGGCTGGAGTGCAATGGTG
CAATCTCAGCTCACTGCAACCTCTGCCTCCCAGGTCCAAGCGATTCTCCTGCCTCAGCCTCCCGGGTAGC
CGGGACTACAGGCGCCTGCCACCACGCCCCGGCTAATTTTTGTATTTTTTAGTAGAGACGAGGTTTCGCCGT
GTTGGCAGGCTGGTCTTGGAACCTCCTGACCTCAGGTGATTTACTCGCCTCGGCCTCCCAAAGTGCTGGGA
TTACAGGCATGAGCCACTGTGCCCAGTCACAAGTTTTTATTTTAGCCATTTTGATAAGTGTGAAGTTCCC
TGATGGCTAATGATGTTCCTTTTTCCATGTGCTCATTTGTCTATGCCAGAGAAGATTTGGAGAGGAG
GACGTGAATTGGAGGAAAACTGTTCCAGGATTCCCCACCTCTGGTGGCCCCACCGCTGGCTCACTGCCATT
GACCACACTGCAGGCAGAGCCTAGTGCACTGCTGGAGCAGGGCCAGAGAGGAGAGGGCTTACAGTGTGA
ATTGCTGTCAACCTCTACCTGGTGGTGTTCACACCATACTGGCCTGTCACTGTGCTTATTCTTACCTGGC
TGGCTTTTTGACTGGAAGACCCCTCAGCGAGGCGGCGCGGTTTACCTGTGTGAGGCACTGGCGCCTGTG
GAAACACTACAGCGATTATTTCCCTCTCAAGCTTCTGAAGACTCATGACATCTGCCCCAGCCGCAACTAC
ATCCTCGTCTGCCACCCCTCATGGGCTCTTTGCCCATGGATGGTTTGGCCACTTTGCCACAGAGGCCTCAG
GCTTCTCCAAGATATTTCTGGCATCACCCCTTACATACTCACACTGGGAGCCTTTTTCTGGATGCCTTT
CCTCAGAGAATATGTAATGTCTACAGGGGCTGCTCTGTGAGTCGATCCTCCATTGACTTTCTGCTGACT
CATAAAGGCACAGGCAACATGGTCATTGTGGTGATTGGTGGACTGGCTGAGTGCAGATACAGCCTGCCAG
GTTCTTCTACCTGGTGTGGAAGAACCGGTCTGGCTTTGTGCGCATGGCCCTTCAGCATGGGGTGCCTCT
AATACCTGCCTATGCCTTTGGGGAGACGGACCTCTATGATCAGCACATTTTCACTCCTGGTGGCTTTGTC
AACCCTTCCAGAAGTGGTTCCAGAGCATGGTACACATCTACCCTTGTGCTTTCTATGGACGTGGCTTCA
CCAAGAAGTCCCTGGGGCCTTCTGCCCTATAGTCGGCCTGTAACCACCATCGTCGGGGAGCCTCTACCAAT
GCCCCAAGATTGAGAATCCAAGCCAGGAGATCGTGGCTAAATATCACACACTCTATATTGATGCCCTACGT
AAACTGTTTGACCAGCATAAGACCAAGTTTGGTATCTCAGAGACCCAGGAGCTGGAGATAATTTGACAGA
CATCCCCAGTAGCCTTCACCCTGGCTGGAAGGTATGGATGGACCCAGTGAGA (SEQ ID NO:013)

FIG. 8D

Human DC5 amino acid sequence

MVEFAPLFVPWERRLQTLAVLQFVFSFLALGKICTVGFIALLFTRFWLLTVLYAAWWYLDLDRDKPRQGGRH
IQAIRCWTIWKYMKDYFPIQLVKTAELDPSRNYIAGFHPHGVLAAGAFANLCTESTGFSSIFPGIRPHLM
MLTLWFRAPFFRDYIMSAGLVTSEKESAAHILNRKGGGNLLGIIVGGAQEALDARPGSFLLLLNRKGFV
RLALHTHGAFLVPIFSFGENDLFDQIPNSSGSWLRYIQNRLQKIMGISLPLFHGRGVFQYSFGLIPYRRPI
TTVGKPIEVQKTLHPSEEEVNLHQHYIKELCNLFEAHKLKFNIPADQHLEFC (SEQ ID NO:16)

Human DC5 nucleic acid sequence

CCACAGCAGAGCTCACAGAACCTGCGGGAGCCAGGCTGACCCGCCAGCATGGTAGAGTTCGCGCCCTTGT
GTGCCGTGGGAGCGCAGGCTGCAGACACTTGCTGTCTACAGTTTGTCTTCTCCTTCTTGCCACTGGGTAAG
ATCTGCACTGTGGGCTTCATAGCCCTCCTGTTTACAAGATTCTGGCTCCTCACTGTCTGTATGCGGCCCTGG
TGGTATCTGGACCGAGACAAGCCACGGCAGGGGGGCGGCACATCCAGGCCATCAGGTGCTGGACTATATGG
AAGTACATGAAGGACTATTTCCCCATCCAGCTGGTCAAGACTGCTGAGCTGGACCCCTCTCGGAACCTACATT
GCGGGCTTCCACCCCATGGAGTCTGTCAGTGGAGCCTTTGCCAACCTGTGCACTGAGAGCACAGGCTTC
TCTTCGATCTTCCCCGGTATCCGCCCCATCTGATGATGCTGACCTTGTGGTTCCGGGCCCCCTTCTTCAGA
GATTACATCATGTCTGCAGGGTTGGTCACATCAGAAAAGGAGAGTGCTGCTCACATTCTGAACAGGAAGGGT
GGCGGAAACTTGCTGGGCATCATTGTAGGGGGTGCCAGGAGGCCCTGGATGCCAGGCCTGGATCCTTCACG
CTGTTACTGCGGAACCGAAAGGGCTTCGTGAGGCTCGCCCTGACACACGGGGCACCCCTGGTGCCAATCTTC
TCCTTCGGGGAGAATGACCTATTTGACCAGATTCCCAACTCTTCTGGCTCCTGGTTACGCTATATCCAGAAT
CGGTTGCAGAAGATCATGGGCATCTCCCTCCCACTCTTTATGGCCGTGGTGTCTTCAGTACAGCTTTGGT
TTAATACCCTACCGCCGGCCCATCACCAGTGTGGGGAAGCCCATCGAGGTACAGAAGACGCTGCATCCCTCG
GAGGAGGAGGTGAACCAGCTGCACCAGCATTATATCAAAGAGCTGTGCAACCTCTTCGAGGCCACAAACTT
AAGTTCAACATCCCTGCTGACCAGCACTTGGAGTTCTGCTGA (SEQ ID NO:15)

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FIG. 9

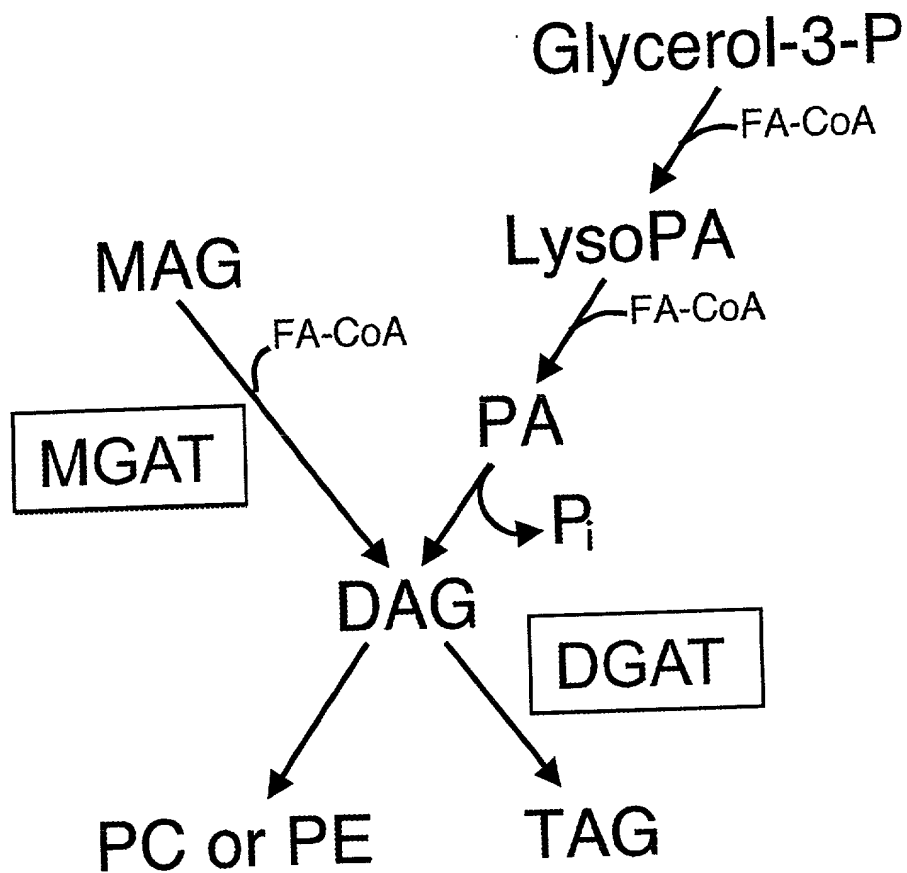


FIG. 10A

mMGAT1 MMVEFAPLN-----TPLAR-----
mDGAT2 MKTLIAAYSGVLRGERRAEAAENSENKNKGSALSREGSGRWGTGSSILSALQDIFSVTWLN
* . : * . . : . : *

mMGAT1 -----CLQTA AVLQWVLSFLLLQVVCIGIMVMLVLYNYWFLYIPYLVWFYDWRTPQQ
mDGAT2 RSKVEKQLQVISVLQWVLSFVLGVACSVILMYTFCTDCWLI AVLFTWLA FDNWTFPKKG
* . : * * * * * : * . : * : : * : : : * : * * : *

mMGAT1 GRRWNWVQSWPVWKYFKEYFPICLVKTQDLDPGHNYIFGFHPHGIFVPGAFGNFCTKYSD
mDGAT2 GRRSQWVRNWAVWRYFRDYFPIQLVKTHNLLTTRNYIFGYHPHGIMGLGAFGNFSTEATE
* * : * : . * : * * : * * * * : * . : * * * * : * * * * : *

mMGAT1 FKRLFPGFTSYLHVAKIWFCFPLFREYLMSNGPVSVSKESSLHVLSKDGGGNVSIIVLGG
mDGAT2 VSKKFPGIRPYLATLAGNFRMPVLRREYLMSGGICPVNRDTIDYLLSKNGSGNAIIIVVGG
.. * * * : . * * . * : * : * * * * . * . : : : : * * : * * . * * : *

mMGAT1 AKEALEAHPGTFTLCIRQRKGFVKMALTHGASLVPVFSFGENDLYKQINNPKGSWLRTIQ
mDGAT2 AAESLSSMPGKNAVTLKNRKGFKLALRHGADLVPTYSGFGENEVYKQVIFEEGSGWRWVQ
* * : * : . * * . : : * * * * : * * * * : * * * : * * : * * * * : *

mMGAT1 DAMDSMGVALPLIYARGIFQ-HYFGIMPYRKLIYTVVGRPIPVQQILNPTSEQIEELHQ
mDGAT2 KKFQKYIGFAPCIFHGRGLFSSDTWGLVPYSKPITTVVGEPIVTPKLEHPTQKDIDLYHA
. : . : * . * : : . * * : . : * * * * * * * * : : * * : * : *

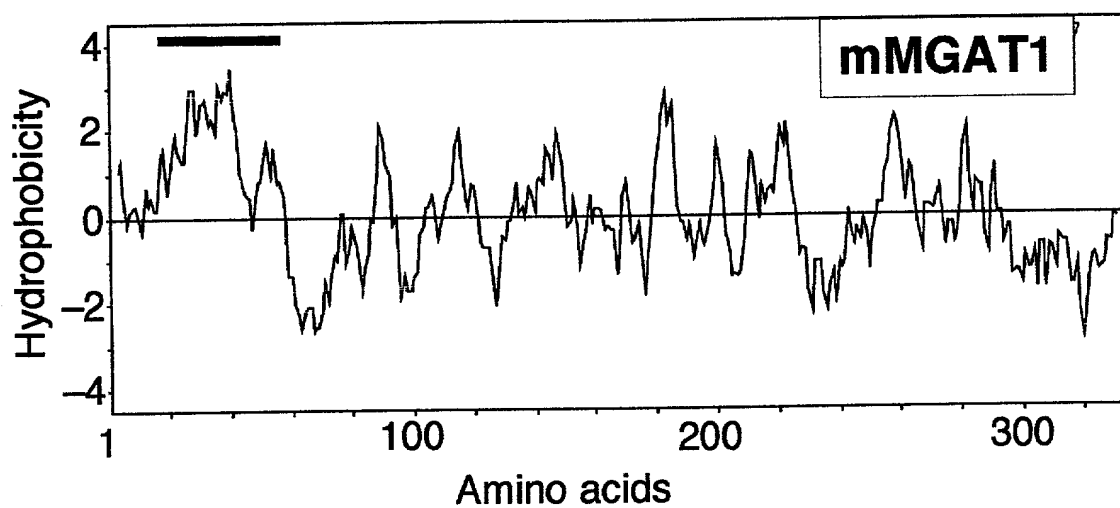
mMGAT1 TYLEELKKLFNEHKGKYGIPEHETLVFK
mDGAT2 MYMEALVKLFDNHNKTKFGLPETEVLEVN
* : * * * * : * * * : * * * * . * . :

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and Methods of Use Thereof"
(19) Drawing pages

FIG. 10B



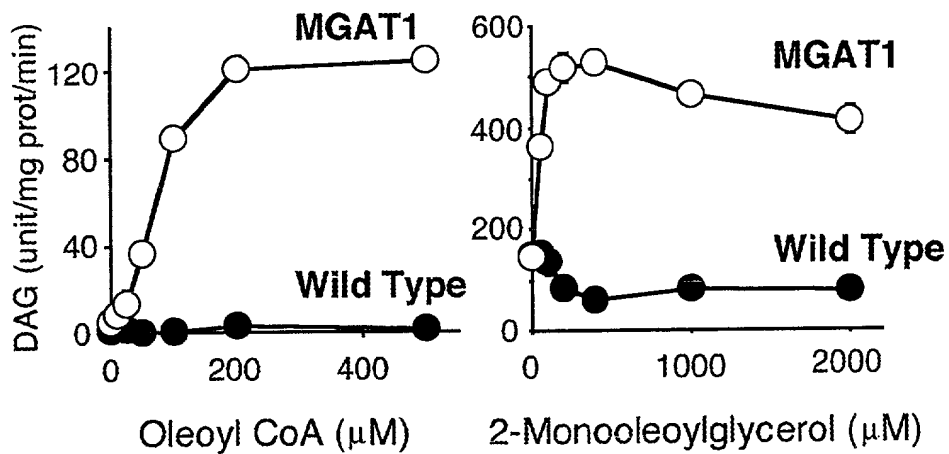


FIG. 11

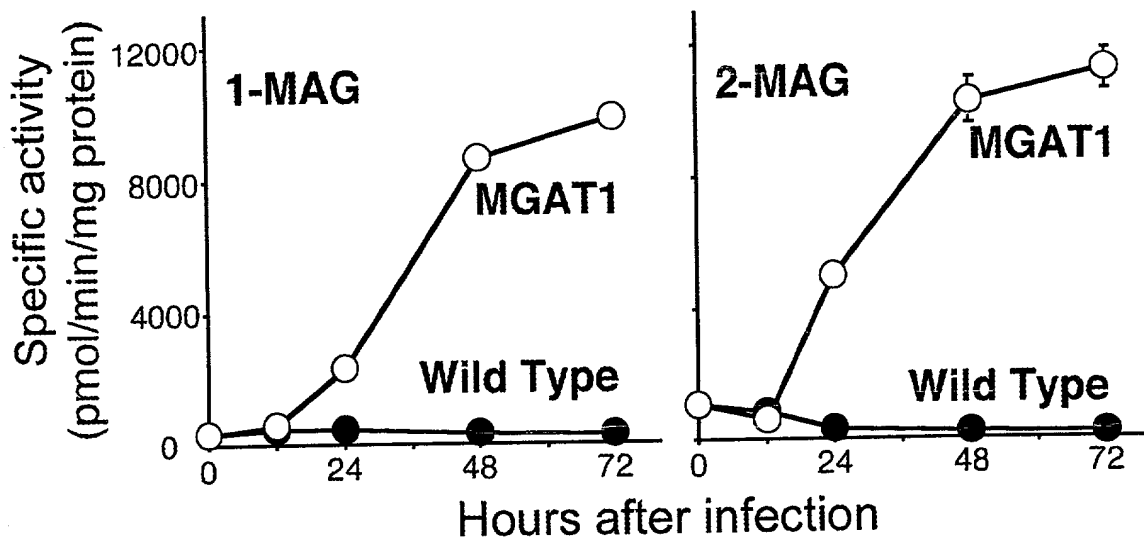
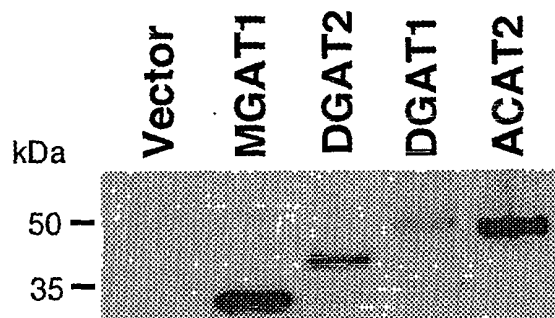


FIG. 12

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FIG. 13

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FIG. 14

